

slightly produced, apically as wide as length of fourth segment of maxillary palpus; midcoxa with a small tubercle on ventral surface; ventral margin of hind femur deeply incised (Fig. 2), depressed basally, width of incised area slightly longer than the length of second hind tarsal segment; sternite II sharply humped medially; sternites III-VI slightly depressed medially; aedeagus figured (Fig. 3). Body length 8.7 mm, wing length 6.2 mm.

Female.—unknown.

Holotype male:—PEÑA BLANCA, SANTA CRUZ COUNTY, ARIZONA, VIII-17-61, Werner, Nutting. Type deposited in collection of the California Academy of Sciences.

In my key to the North America species this runs to *A. bakeri* Parker. It is easily distinguished from *bakeri* by its larger compound eyes and incised hind femora. In all probability it is a Mexican species which only occasionally enters the United States.

TWO NEW SPECIES OF CHYPHOTES FROM SOUTHWESTERN UNITED STATES¹

(Hymenoptera: Mutillidae)

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The two species described below have come to my attention while working over the mutillid collections of the University of Arizona.

Chyphotes minimus Mickel, new species

Male.—Body pale testaceous, antennae and legs stramineous, ocellar area infuscated; third abdominal tergum castaneous, darker than remainder of abdomen; head almost impunctate, with a few, small, scattered punctures; mandibles slender, dorsal carina weakly developed, not wider medially than elsewhere; clypeus convex, distal margin lying above dorsal edge of mandibles; front with a deep pit anterior to anterior ocellus, a faint depressed line extending from pit to antennal tubercles; ocellar area distinctly elevated; head triangular behind eyes; pronotum dull, with scattered, setigerous punctures, except a broad posterior margin glabrous, impunctate; sides of pronotum faintly rugoso-reticulate; propleura dull, with a cluster of setigerous punctures at ventro-lateral angle adjacent to coxae; mesonotum dull, faintly granulate, with scattered setigerous punctures; scutellum faintly rugoso-punctate, punctures setigerous; mesopleura weakly rugoso-reticulate, with a

¹ Paper No. 5054, Scientific Journal Series, Minnesota Agricultural Experiment Station, St. Paul 1, Minnesota

few setigerous punctures; propodeum distinctly, irregularly reticulate, closely so on sides, reticulations elongate on dorsum, posterior face transversely rugose; mesosternum dull, faintly granulate, with scattered, setigerous punctures, depressed at midline, and with an extremely minute tooth in front of each middle coxa; metasternum with a median longitudinal carina, but without teeth in front of hind coxae; dorsum of petiole of first abdominal segment transversely rugose, swollen posterior area with elongate reticulations, each reticulation with a setigerous puncture at its anterior margin, posterior margin of tergum longitudinally rugose; first abdominal sternum rugoso-punctate; surface of second abdominal tergum faintly longitudinally striate, and with moderate, oblique, setigerous punctures; remaining abdominal terga shagreened and with scattered, small, setigerous punctures; second abdominal sternum glabrous, except narrow, distal margin shagreened, with moderate, oblique, well separated setigerous punctures; remaining sterna shagreened and with small setigerous punctures; wings hyaline, with only two submarginal cells and one discoidal cell; marginal cell subtruncate distally. Length, 5 mm.

Holotype male: ORGAN PIPE NATIONAL MONUMENT HEADQUARTERS, ARIZONA, light trap, April 17, 1955 (J. Eden), in collection of University of Minnesota, St. Paul, Minn. Paratypes: Three males, Organ Pipe National Monument HQ, Arizona, light trap, April 19, 1955 (J. Eden); four males, Organ Pipe National Monument, Pima County, Arizona, light, April 14, 1956 (G. D. Butler and F. G. Werner), two of these without abdomens. In collections of University of Arizona and University of Minnesota.

Distinguished from both *pallidus* and *attenuatus* by the elongate reticulations of the first tergum, the fine longitudinal striations of the surface of the second tergum, and the transversely rugose posterior face of the propodeum. The paratypes vary in length from 5 to 8 mm.

Buzicky's key to the males of *Chyphotes* (1941) may be modified as follows to include *minimus* Mickel:

15. Dorsal mandibular carina elevated and conspicuous at the middle, thus the mandible broadest medially.....*attenuatus* (Blake).
Dorsal mandibular carina weak throughout, the mandible slender, not broader medially16
16. Posterior face of propodeum reticulate; first tergum coarsely punctate to the posterior margin; surface of second tergum weakly shagreened between the punctures.....*pallidus* Buzicky.
Posterior face of propodeum transversely rugose; first tergum with elongate, narrow reticulations posteriorly; surface of second tergum finely longitudinally striate between the punctures*minimus* Mickel.

Chyphotes nitidus Mickel, new species

Female.—Body, antennae and legs, stramineous, distal half of mandibles castaneous (postero-lateral fifths of second tergum, posterior half of second sternum, and all of third sternum, castaneous, apparently discolored by internal body fluids); head subovate, slightly wider than prothorax, but narrower than widest part of mesothorax; compound eyes ovate, one and one-half times as long as wide; first segment of flagellum distinctly shorter than second; head entirely glabrous with a very few scattered punctures, each puncture with a short semi-erect hair; pronotum glabrous throughout, dorsum almost impunctate, but lateral edges of dorsum defined by a row of setigerous punctures; sides of pronotum weakly, vertically rugose; propleura with a tuft of erect setae adjacent to the anterior coxae; mesothorax completely fused with the metathorax and propodeum, the dorsal and lateral surfaces evenly rounded into one another and glabrous throughout, with a very few scattered, setigerous punctures, and the anterior face of mesopleura separated from the shallowly punctate posterior face by a vertical row of setigerous punctures; anterior portion of first abdominal sternum slender, subterete, slightly greater in diameter posteriorly than anteriorly, the dorsum glabrous, the sides obliquely rugose; junction of first abdominal sternum and tergum forming an obtuse angle; all the abdominal terga glabrous, with a very few scattered setigerous punctures, the second to fifth terga each with a thin, distal fringe of pale hairs; pygidial tergum weakly shagreened. Length, 6 mm.

Holotype female, 13 MILES WEST OF WINTERHAVEN, CALIFORNIA, May 23, 1956 (V. Roth), in collection of University of Minnesota, St. Paul, Minn.

Differs from all other described females in the glabrous surface of the body and the sparse, scattered puncturation.

Buzicky's key to the females of *Chyphotes* (1941) may be modified as follows to include *nitidus* Mickel:

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| 6. | Femora and tibiae piceous or infuscated..... | <i>albipes</i> (Cresson). |
| | Femora and tibiae testaceous or light yellow..... | 6½ |
| 6½. | Pronotum and mesonotum-propodeum distinctly punctate throughout | <i>epedaphus</i> Buzicky. |
| | Pronotum and mesonotum-propodeum glabrous throughout and with only a very few scattered setigerous punctures..... | <i>nitidus</i> Mickel. |

LITERATURE CITED

BUZICKY, A. W.

1941. A Monograph of the Genus *Chyphotes* (Hymenoptera, Mutillidae, Apterogyninae) of North America. Ent. Amer., 21 (n.s.): 201-243.